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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,979	09/26/2006	Irena Horska	P48274	8206

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EXAMINER	
HOFFMAN, SUSAN COE	
ART UNIT	PAPER NUMBER
1655	

NOTIFICATION DATE	DELIVERY MODE
05/05/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@hershkovitz.net
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Office Action Summary	Application No.	Applicant(s)	
	10/582,979	HORSKA, IRENA	
	Examiner	Art Unit	
	Susan Coe Hoffman	1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) *1 and 2* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed March 12, 2008 has been received and entered.

2. Claims 1-10 are currently pending.

Election/Restrictions

3. Applicant's election with traverse of Group II, now claims 3-10, in the reply filed on March 12, 2008 is acknowledged. The traversal is on the ground(s) that claims 6 and 8-10 should be included in Group II. The examiner agrees that the claims as amended belong in Group II. Applicant did not specifically traverse the restriction between Groups I and II. Thus, the restriction between Group I and Group II is still considered valid for the reasons of record.

The requirement is still deemed proper and is therefore made FINAL.

4. Claims 1 and 2 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on March 12, 2008.

5. Claims 3-10 are currently pending.

Claim Objections

6. Claims 4-10 are objected to because of the following informalities: the claims should begin with "The method" rather than "A method" because they are dependent claims. Appropriate correction is required.

7. Claims 6 and 9-10 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. These claims contain the same intended use that is claimed in claim 3. Thus, claims 6 and 9-10 do not further limit claim 3.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 5, and 7-10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 4 is indefinite because it is unclear what particle sizes are encompassed by "fine".

The claim is also indefinite because there is a lack of antecedent basis for "the extraction cartridges" and "the extractor."

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is

(a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 4 recites the broad recitation "temperature between about 35 degrees C - 45 degrees C and under pressure between 25 MPa - 35 MPa", and the claim also recites "advantageously at 40 degrees C and the pressure of 20 MPa" which is the narrower statement of the range/limitation.

Claim 4 is also indefinite because the pressure of 20 MPa is outside the first claimed range, i.e. a pressure between 25 MPa and 35 MPa.

Furthermore, claim 4 is indefinite because it is unclear what is meant by the phrase "the hemp oil extraction process is slowed down".

9. Claims 5 and 7 are indefinite because there is lack of antecedent basis for "the crushed silicon sand" and "the surface absorption."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 3, 4, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watson (WO 95/31176) in view of GB 1 356 749.

Watson teaches a method of extracting hemp seed oil using cold pressing (see claim 8). The hemp seed oil is used in cosmetics. The reference does not teach using carbon dioxide to extract the hemp seed oil.

GB '749 teaches extracting vegetable oils from ground or crushed plant material using supercritical carbon dioxide. The reference teaches that the use of carbon dioxide to extract the oil is superior to mechanical pressing because the pressing does not extract all of the oils from the plant material (see page 2, lines 16-18). Based on this teachings, an artisan of ordinary skill would be motivated to using supercritical carbon dioxide to extract the hemp seed oil in Watson. The artisan would be motivated because the artisan would reasonably expect that extraction by supercritical carbon dioxide would extract more oil from the seed in comparison with the cold press technique taught in Watson.

GB '749 teaches performing the extraction by passing the supercritical carbon dioxide through the plant material to extract the oil. GB '749 teaches using pressures between 100 atm (10 MPa) and 400 atm (40 MPa) and temperatures from 5 degrees above the critical temperature for the gas to 100 degrees C (see page 2). The reference does not specifically teach using 20 MPa or 25 MPa - 35 MPa or 35 degrees C to 45 degrees C. However, "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). The reference discloses a range that overlaps with the ranges claimed by applicant. Thus, the general conditions of the claim are taught in the prior art. Therefore, it is not considered to be inventive for an artisan to modify the temperature and pressure within these

general conditions to determine the optimal temperature and pressure to extract the hemp seed oil as taught by the combination of Watson and GB '749.

After the oil is extracted with the supercritical carbon dioxide, GB '749 then teaches lowering the pressure to the point that the carbon dioxide becomes gaseous to allow for its separation from the plant material and the extracted oil (see page 2). The reference then teaches that the carbon dioxide can be returned to a liquid state (see page 3, lines 67-71). The reference does not teach that the supercritical carbon dioxide is stored in a reserve tank. However, the reference does teach that the carbon dioxide can be reused; thus, it would be obvious to store this reusable solvent for later extraction.

GB '749 teaches grinding or crushing the plant material prior to the extraction; however, the reference does not teach grinding the seeds into a "fine" powder. However, an artisan of ordinary skill would reasonably expect that grinding the seeds into a powder would be beneficial for the extraction because this would result in a larger surface area accessible for extraction. This would result in the extraction of a large amount of product. Thus, this reasonable expectation of success would motivate the artisan to modify the extraction taught by the references to include milling the hemp seeds into a fine powder.

11. Claims 5, 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watson and GB '749 as applied to claims 3, 4, 6 and 8 above, and further in view of Welsh (US 4,629,588).

The teachings of Watson and GB '749 are discussed above. The references do not teach using silicon sand to remove chlorophyll and waxes from the extracted hemp oil. However, Welsh teaches that it was known in the art at the time of the invention that vegetable oils contain

impurities that contribute off odors and colors. This reference teaches removing these impurities using silica (sand). The silica is mixed with the oils, the silica absorbs the impurities, then the silica is filtered out (see column 6, lines 3-27). Thus, an artisan of ordinary skill would reasonably expect that the hemp seed oil produced using the method taught by Watson and GB '749 could be improved by adding a purification step such as that taught by Welsh. This reasonable expectation of success would motivate the artisan to modify Watson and GB '749 to include purification with silica as taught by Welsh. The references do not teach using the amounts of the silica claimed by applicant. However, an artisan would be motivated to modify the amount of silica used in order to best achieve the purification of the product.

12. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Coe Hoffman whose telephone number is (571) 272-0963. The examiner can normally be reached on Monday-Thursday, 9:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on (571) 272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Susan Coe Hoffman/
Primary Examiner, Art Unit 1655